

FIG. 1: Revised phase diagram of PMN-x%PT with zero field. (G-1)

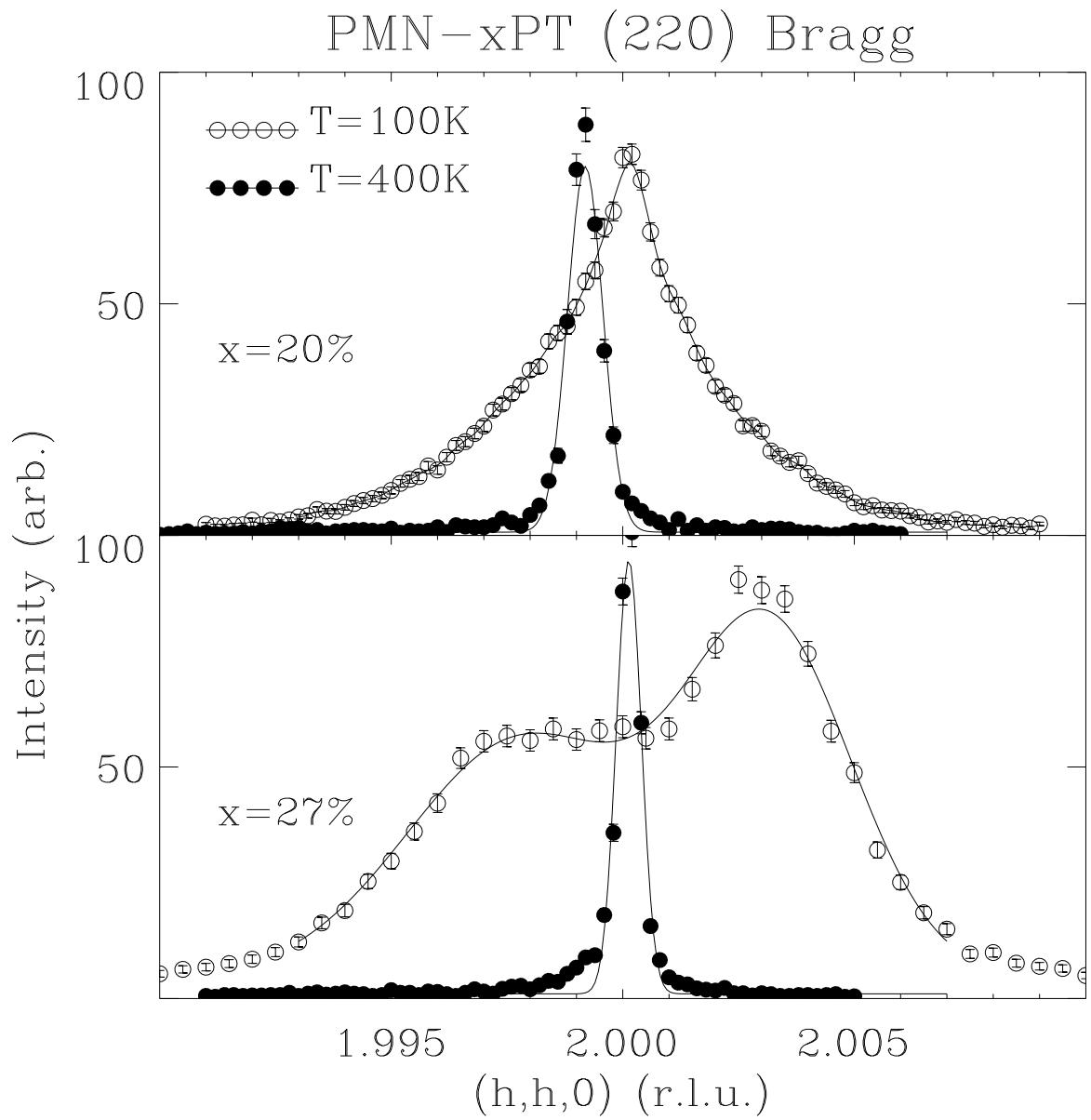


FIG. 2: (220) Bragg peaks of PMN-20%PT and PMN-27%PT, measured at 100 K (closed circles) and 500 K (open circles). (G-2)

PMN-20PT

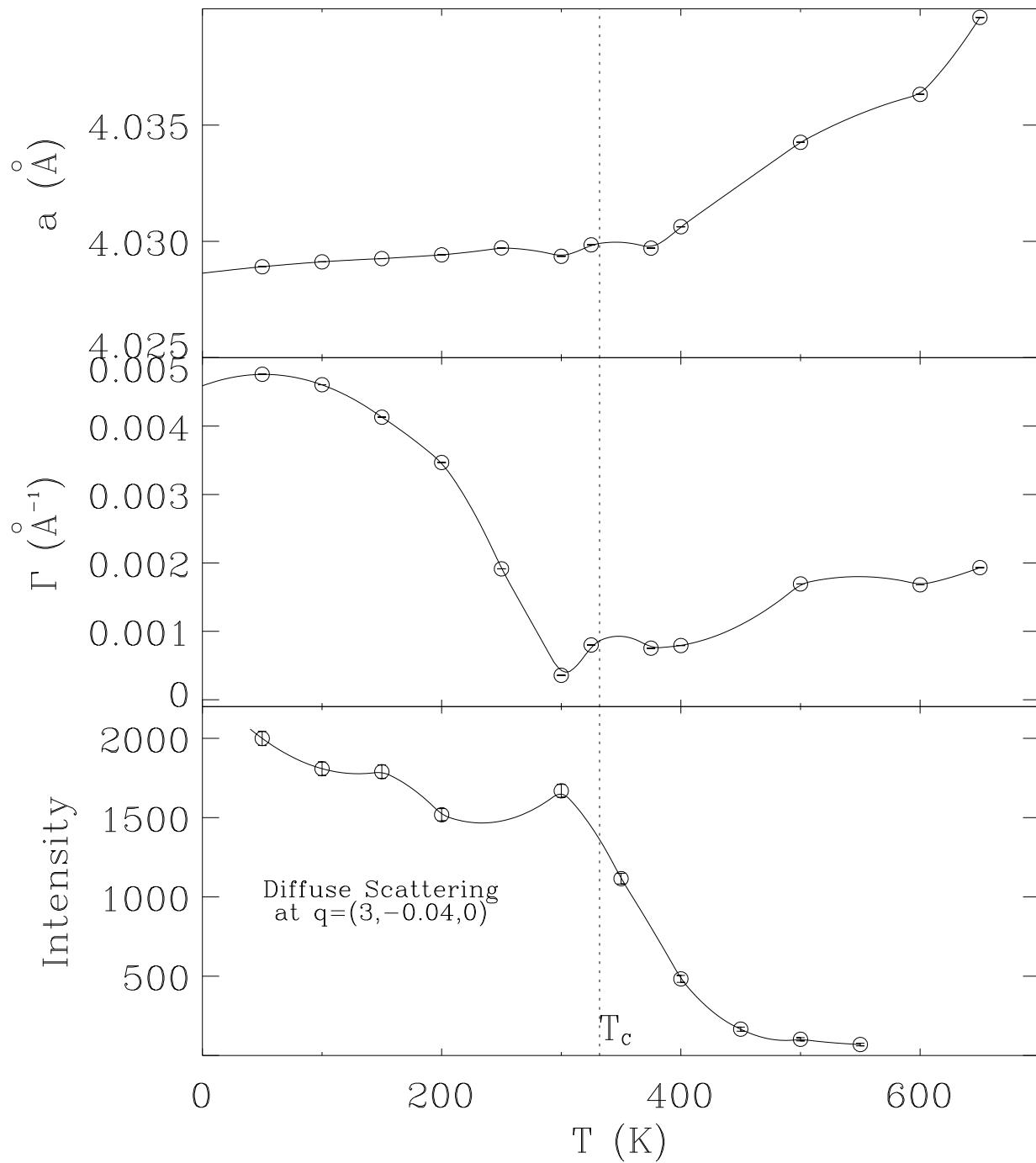


FIG. 3: Lattice parameter a , HWHM γ and $(3,-0.04,0)$ diffuse intensity of PMN-20PT. (G-3)

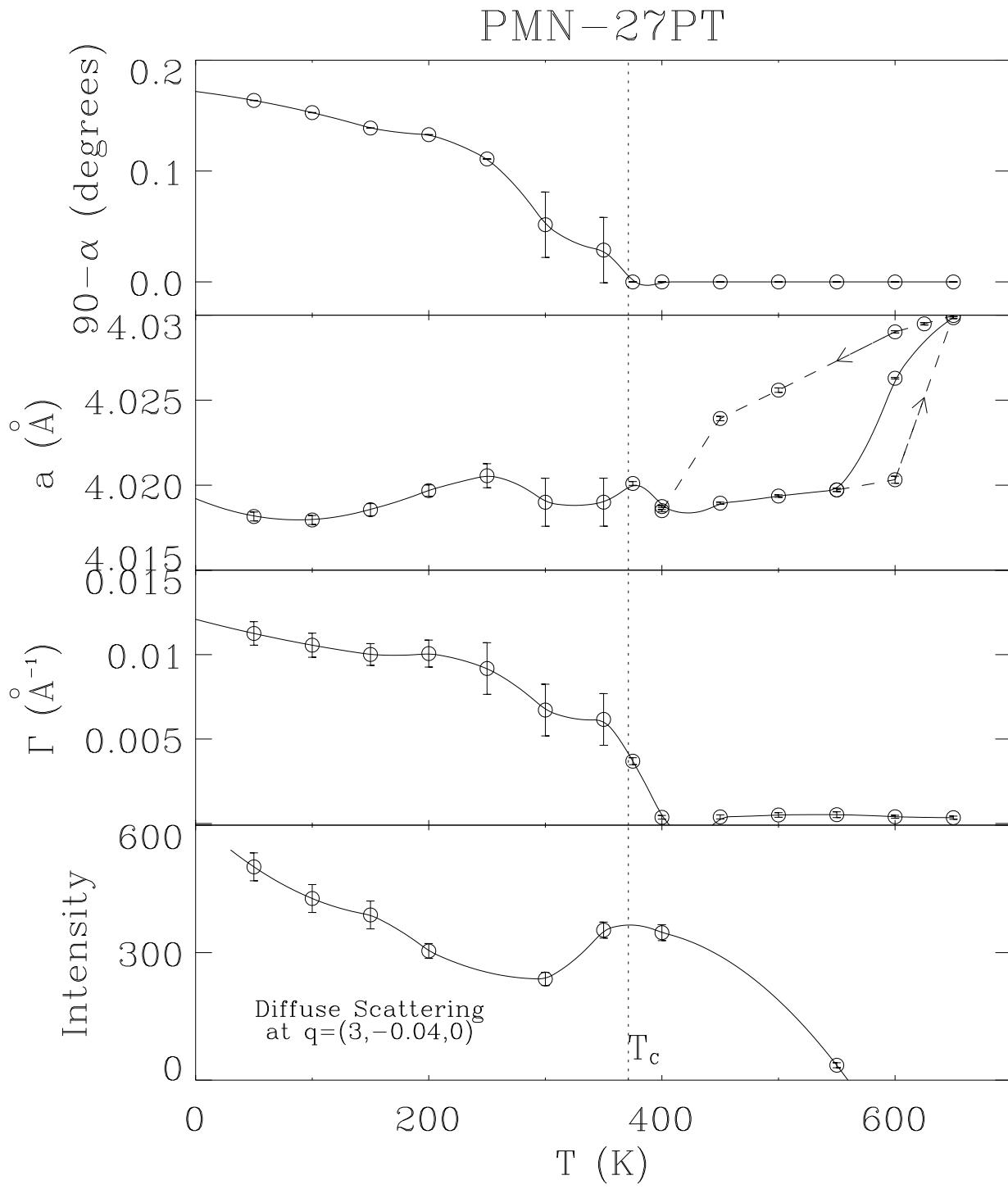


FIG. 4: Rhombohedral angle α , lattice parameter a , HWHM γ and $(3, -0.04, 0)$ diffuse intensity of PMN-27PT. (G-4)

PMN-XPT

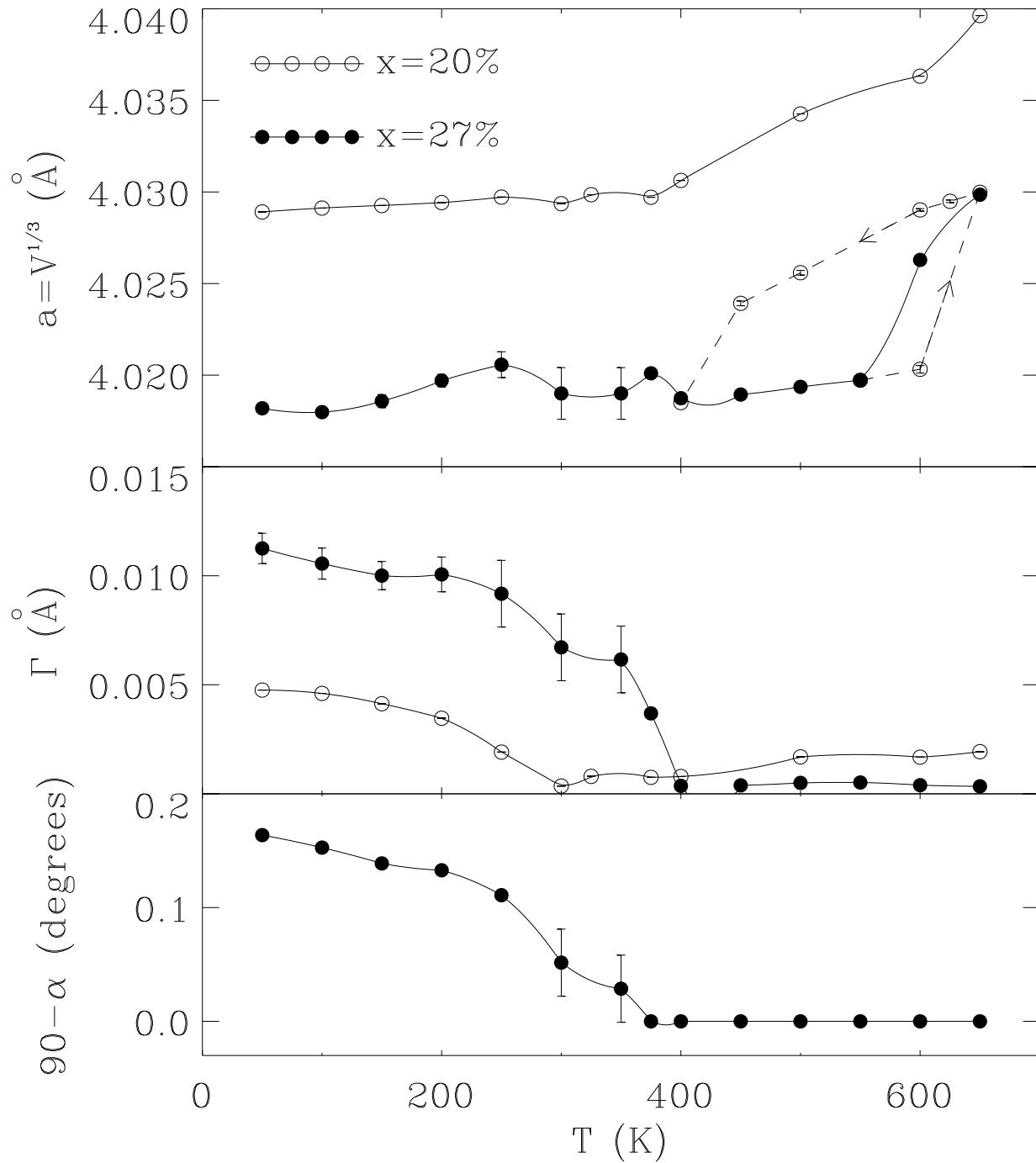


FIG. 5: Lattice parameter $a = V^{1/3}$, Bragg profile half width Γ and the rhombohedral angle α for 20PT and 27PT. (G-5)